

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number  
WO 03/088220 A1

(51) International Patent Classification<sup>7</sup>:

G11B 7/00

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CI, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GH, GH, GM, IIR, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TI, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/IB03/01158

(22) International Filing Date:

20 March 2003 (20.03.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02076458.5 15 April 2002 (15.04.2002) EP

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL];  
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): ROSMALEN, Gerard, E. [NL/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: SCHRIJNEMAEKERS, Hubert, J., M.; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW). Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

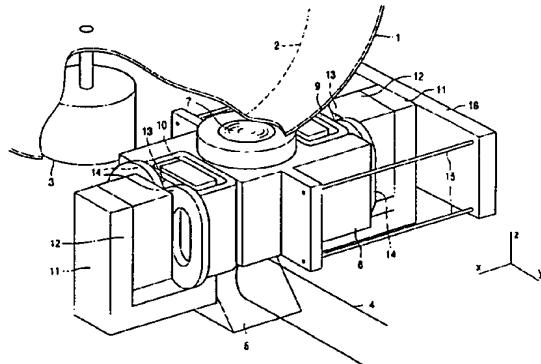
Published:

with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: READ/WRITE HEAD FOR OPTICAL DISK DRIVE AND OPTICAL DISK DRIVE COMPRISING SUCH A READ/WRITE HEAD



(57) Abstract: A read/write head for an optical disk drive, comprises a lens holder (8), a support frame (11, 12, 16), means (15) for suspending the lens holder (8) in the support frame, which means constrain movement of the lens holder (8) relative to the support frame, allowing only an at least limited translation in a focussing direction (z), parallel to the optical axis of a lens (7) in the lens holder (8), an at least limited translation in a tracking direction (y), perpendicular to the focussing direction (z), and an at least limited rotation about an axis in a tangent direction (x), perpendicular to both the focussing and the tracking direction, and actuator means, comprising only two conductive focussing coils (9, 10) with a winding axis parallel to the focussing direction (z), each positioned relative to a magnetic circuit (11, 12) in such a way that a current flowing through a coil (9, 10) gives rise to a force between the lens holder (8) and the support frame in the focussing direction (z). The winding axes of the two focussing coils (9, 10) are positioned on opposite sides of a plane through the center of mass of the lens holder (8), and parallel to the focussing and the tangent direction. The focussing coils (9, 10) are spaced apart in the tangent direction (x).

WO 03/088220 A1